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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/596,260 | 02/06/2007 | Raymond G. Roth | PAT 53988W-2 | 4571 |
| 26123 7590 10/14/2010 BORDEN LADNER GERVAIS LLP Anne Kinsman WORLD EXCHANGE PLAZA 100 QUEEN STREET SUITE 1100 OTTAWA, ON K1P 1J9 CANADA | | | | |
| EXAMINER STEPHENSON, DANIEL P | | | | |
| ART UNIT 3676 | | PAPER NUMBER | | |
| NOTIFICATION DATE 10/14/2010 | | DELIVERY MODE ELECTRONIC | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipinfo@blgcanada.com

Office Action Summary

Application No.

10/596,260

Applicant(s)

ROTH ET AL.

Examiner

DANIEL P. STEPHENSON

Art Unit

3676

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-11, 22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-11, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3 June '09 and 7 June '06 and 27 Sep '10 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 9-11, 22, and 23 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility. Analysis of the Applicant's disclosure reveals the following to the Examiner:

- The pullhead 24 must move from right to left with respect to figure 2 (i.e., towards the motor 16)
- The pullhead 24 creates a borehole that has a diameter approximately equal to the diameter of the pullhead at second end 26 (page 7, lines 15-21)
- Slurry jets 50 release drilling fluid from the rear of the pullhead and into the annulus between the steel connect 28 (and/or casing 30) and the borehole previously drilled by the pullhead (figures 4 and 6); thus the slurry created by the mixing of the drilling fluid and the mud must be located in the annulus *behind* the pullhead (emphasis added)

Therefore, it appears that the Applicant's claimed invention cannot operate as currently claimed. If the diameter of the borehole is approximately equal to the diameter of the pullhead and the slurry jets release the drilling fluid into the annulus behind the pullhead, then it is unclear to the Examiner how the slurry created by the drilling fluid then could ever be forced to leave the annulus behind the pullhead, travel between the borehole and the pullhead (which are said to be of diameters that are approximately equal), and then be made to enter through the flutes 48 of the

pullhead so that the slurry can then travel to and through the interior of the pipe being laid. Without any specific structure or disclosure to the contrary, it appears that the drilling fluid leaving the slurry jets 50 will mix with the mud in the annulus behind the pullhead to create a slurry, said slurry will then either be simply left in the borehole and/or travel along the borehole in a direction opposite to that of the pullhead. Thus, again, it does not appear that the Applicant's disclosed invention can operate in the claimed manner because it does not appear to be physically possible for the slurry to be guided directly through the pullhead to an interior of the pipe.

Response to Arguments

2. The use of evidence, in the form of videos, within the remarks is not a sufficient argument. Evidence should be submitted in the form of an affidavit under 37 CFR 1.131 or 1.132, indicating who is making the declaration. While the videos do show something that may be the applicant's device and method as claimed, it is not a persuasive argument, as it does not show specifically what is occurring at the bit, but merely a pipe ejecting what appears to be a slurry of fluid and the preparation and binning of drilling under a river.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL P. STEPHENSON whose telephone number is (571)272-7035. The examiner can normally be reached on 8:30 - 5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shane Bomar can be reached on (571) 272-7026. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DANIEL P STEPHENSON/
Primary Examiner, Art Unit 3676